

Appl. No. 10/036,218
Amdt. dated August 10, 2005
Reply to Office Action of May 27, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Please amend claims 1, 16, and 24 as follows:

1. (currently amended): An electronic price label (ESL) system comprising:
an ESL receiving a message transmitted from a communications base station (CBS), the ESL including a transmitter having a generator for producing a pseudo-random code sequence, the transmitter for transmitting a response to the message by reflectively modulating a continuous wave (CW) signal with athe pseudo-random code sequence so as to impose the pseudo-random code sequence on the continuous wave signal; and
the CBS receiving and correlating the reflectively modulated CW signal.
2. (original): The ESL system of claim 1 wherein the CW signal is transmitted by the CBS during a time period in which the ESL responds.
3. (original): The ESL system of claim 1 wherein the pseudo-random code sequence is selected by the ESL from a plurality of pseudo-random code sequences to correspond to a particular response.
4. (original): The ESL system of claim 1 wherein the pseudo-random code sequence is modulated onto a carrier, the carrier reflectively modulating the CW signal received from the CBS.

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5. (original): The ESL system of claim 3 wherein the carrier oscillates at about 32 kHz.
6. (previously presented): The ESL system of claim 3 wherein the response exhibits a remodulated spectrum is centered around the carrier.
7. (original): The ESL system of claim 1 wherein the message is transmitted to the ESL using a Manchester coded amplitude modulated carrier.
8. (original): The ESL system of claim 1 wherein the message includes a command instructing the ESL to perform an action and the response includes an acknowledgement indicating the ESL successfully performed the action.
9. (original): The ESL system of claim 1 wherein the ESL selects a seed value corresponding to the response.
10. (original): The ESL system of claim 9 wherein the ESL generates the pseudo-random code sequence based on the seed value.
11. (original): The ESL system of claim 10 wherein the ESL modulates the code sequence onto a carrier to generate a digitally modulated signal.
12. (original): The ESL system of claim 11 wherein the ESL transmits the response by varying a reflection of the CW with the digitally modulated signal.
13. (original): The ESL system of claim 12 wherein the CBS bandpass filters the response and performs demodulation to remove the carrier.
14. (original): The ESL system of claim 13 wherein the CBS correlates the response.

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15. (original): The ESL system of claim 14 wherein the CBS relays the response to a host system for identification.

16. (currently amended): An electronic shelf label (ESL) communication method comprising the steps of:

transmitting a message to an ESL from a communications base station (CBS);

generating a pseudo-random code sequence at the ESL;

transmitting a response by the ESL to the message by reflectively modulating a continuous wave (CW) signal with athe generated pseudo-random code sequence so as to impose the pseudo-random code sequence onto the continuous wave signal; and

receiving and correlating the reflectively modulated CW signal by the CBS.

17. (original): The method of claim 16 further comprising the step of:
selecting a seed value corresponding to the response by the ESL.

18. (original): The method of claim 17 further comprising the step of:
generating the pseudo-random code sequence based on the seed value by the ESL.

19. (original): The method of claim 18 further comprising the step of:
modulating the code sequence onto a carrier to generate a digitally modulated signal by the ESL.

20. (previously presented): The method of claim 19 further comprising the step of:
transmitting the response by varying a reflection of the CW signal with the digitally modulated signal.

21. (original): The method of claim 20 further comprising the steps of:

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bandpass filtering the response; and

performing demodulation to remove the carrier.

22. (original): The method of claim 21 further comprising the step of:
correlating the response.

23. (original): The method of claim 22 further comprising the step of:
relaying the correlated response to a host system for identification.

24. (currently amended): An electronic price label (ESL) comprising:

an ESL receiving a message transmitted from a communications base station (CBS), the
ESL including a transmitter having a generator for producing a pseudo-random code sequence,
the transmitter ~~for~~ transmitting a response to the message by reflectively modulating a continuous
wave (CW) signal with ~~at~~ the pseudo-random code sequence so as to impose the pseudo-random
code sequence onto the continuous wave signal.

25. (original): The ESL of claim 24 wherein the CW signal is transmitted by the CBS
during a time period in which the ESL responds and the CBS receives and correlates the
reflectively modulated CW signal.

26. (original): The ESL of claim 24 wherein the pseudo-random code sequence is
selected by the ESL from a plurality of pseudo-random code sequences to correspond to a
particular response.

27. (original): The ESL of claim 24 wherein the pseudo-random code sequence is
modulated onto a carrier, the carrier reflectively modulating the CW signal received from the
CBS.

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28. (original): The ESL of claim 24 wherein the message is transmitted to the ESL using a Manchester coded amplitude modulated carrier.

29. (original): The ESL of claim 28 wherein the message includes a command instructing the ESL to perform an action and the response includes an acknowledgement indicating the ESL successfully performed the action.

30. (original): The ESL of claim 24 wherein the ESL selects a seed value corresponding to the response.

31. (original): The ESL of claim 30 wherein the ESL generates the pseudo-random code sequence based on the seed value.

32. (original): The ESL of claim 31 wherein the ESL modulates the code sequence onto a carrier to generate a digitally modulated signal.

33. (original): The ESL of claim 32 wherein the ESL transmits the response by varying a reflection of the CW with the digitally modulated signal.